

### REMARKS

Applicant requests reconsideration of the application in view of the foregoing amendments and the discussion that follows. The status of the claims as of this response is as follows: Claims 1-15 are pending. Claims 1 and 8 have been amended herein.

#### The Amendments

Claim 1 was amended to recite that the pad of resistive material is on the substrate. Support therefor is in the specification, for example, page 5, lines 12-14, and original claim 1.

Claim 8 was amended in a manner similar to that for claim 1.

#### Rejection under 35 U.S.C. §102

Claims 8, 10-11 and 13-14 were rejected under paragraph (b) of the above code section as being anticipated by Eggers, *et al.* (U.S. Patent No. 5,670,322) (Eggers 1). The Office Action asserts that Eggers 1 teaches all of the elements of claim 8.

Without acquiescing in the assertions in the Office Action, Applicant submits that Eggers 1 does not disclose or suggest each and every element of claim 8. The microarray of claim 8 includes the limitation that the pad of resistive material is disposed on the substrate between the first electrode and the second electrode. Even if for the sake of argument one were to accept the contentions in the Office Action regarding the disclosure of Eggers 1 (which Applicant does not), the reference does not disclose or suggest a pad of resistive material on the substrate between the first and second electrodes. In Eggers 1, the substrate, which the Office Action identifies as a pad of resistive material, is not on a substrate as recited in the present claim. Furthermore, the substrate, which the Office Action identifies as the pad of resistive material, does not lie between the first electrode and the second electrode as recited in claim 8. In Eggers 1, the "substrate" lies under the electrodes.

The Office Action asserts that the silicon dioxide insulating material of Eggers 1 is "resistive" as the term is used in the present specification. Without acquiescing in the above assertion, Applicant submits that the silicon dioxide insulating material does not satisfy the limitation of a pad of resistive material on a substrate as required in the claim. If the insulating material of Eggers 1 is a pad of resistive material as argued in the Office Action, then, Eggers 1 fails to disclose or suggest a substrate upon which the

pad of resistive material lies as required in claim 8. If the insulating material of Eggers 1 is a substrate, then the disclosure of Eggers 1 lacks a teaching of a pad of resistive material. In either event, there is no disclosure in Eggers 1 of a pad of resistive material between the two electrodes as set forth in claim 8.

Claims 10, 11, 13 and 14 are patentable over Eggers 1 at least in view of their respective dependency from claim 8, which, as demonstrated above, is patentable over Eggers 1.

#### Rejection under 35 U.S.C. §103

Claims 1-5 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Park, *et al.* (Science, 2002) (Park) in light of Fluke Corporation (Fluke Model 187 & 189 True RMS Multimeter Users Manual, 2000), and in view of Eggers, *et al.* (U.S. Patent No. 5,891,630) (Eggers 2). The Office Action contends that Park combined with Fluke discloses all of the elements of claim 1 except that the combination fails to teach that the substrate comprises integrated addressing circuitry in operable relation to each of the plurality of features and also fails to teach the step of providing a signal to the addressing circuitry to select one of the plurality of features to be interrogated. However, asserts the Office Action, Eggers 2 does teach the features missing from the combined teaching of Park and Fluke. The disclosure of Eggers 2 appears to be essentially the same as that for Eggers 1 (both patents resulted from applications that were either a continuation or division from the same parent application).

Applicant respectfully traverses this ground of the rejection. Without acquiescing in the assertions in the Office Action, Applicant submits that the combined teaching of Park, Fluke and Eggers 2 does not disclose or suggest each and every element of claim 1. The method of claim 1 includes the limitation that the microarray employed comprises a pad of resistive material disposed on the substrate between the first electrode and the second electrode. Even if for the sake of argument one were to accept the contentions in the Office Action regarding the disclosure of Parks and Fluke, the combined teachings of these two references do not disclose or suggest a pad of resistive material on the substrate between the first and second electrodes. The Office Action contends that Park discloses electrical detection of DNA by detecting binding between a capture oligonucleotide strand located in the gap between two fixed microelectrodes and a longer target oligonucleotide in solution. Park fails to disclose a pad of resistive material on a substrate between a first electrode and a second

electrode as recited in the present claim. For the reasons presented above with regard to Eggers 1 and claim 8, Eggers 2 does not cure the above deficiencies of the combined teachings of Park and Fluke. Eggers 2 does not teach or suggest a pad of resistive material on the substrate between the first and second electrodes.

Claims 2-5 and 7 are patentable over the combined teachings of Park, Fluke and Eggers 2 at least as a result of their respective dependency from claim 1, which, as demonstrated above, is patentable over the combined teachings of the references.

Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Park in light of Fluke and in view of Eggers 2 as applied to claims 1 and 3 above, and further in view of Cheung (U.S. Patent No. 5,132,242).

Without acquiescing in the above rejection, claim 6 is patentable over the combined teachings of Park, Fluke, Eggers 2 and Cheung at least as a result of the dependency of claim 6 from claim 1, which, as demonstrated above, is patentable over the combined teachings of the Park, Fluke and Eggers 2. The deficiencies of the combined teachings of these references with regard to claim 1 are enumerated above and Cheung does not cure these deficiencies.

Claim 9 was rejected under paragraph (a) of the above code section as being unpatentable over Eggers 1 in view of Nayak (U.S. Patent No. 4,789,628).

Without acquiescing in the above rejection, claim 9 is patentable over the combined teachings of Eggers 1 and Nayak at least as a result of the dependency of claim 9 from claim 8, which, as demonstrated above, is patentable over Eggers 1. The deficiencies of Eggers 1 with regard to claim 8 are enumerated above and Nayak does not cure these deficiencies.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Eggers 2 in view of Mallet, *et al.* (U.S. Patent No. 6,660,533) (Mallet).

Without acquiescing in the above rejection, claim 12 is patentable over the combined teachings of Eggers 2 and Mallet at least as a result of the dependency of claim 12 from claim 8, which, as demonstrated above, is patentable over Eggers 2 (which appears to be the same disclosure as Eggers 1). The deficiencies of Eggers 2 with regard to claim 8 are enumerated above and Mallet does not cure these deficiencies. Neither Eggers 2 nor Mallet, either individually or in combination, teaches or suggests a pad of resistive material on a substrate between a first electrode and a second electrode.


Claim 15 was rejected under paragraph (a) of the above code section as being unpatentable over Eggers 2 in view of Sandstrom (U.S. Patent No. 6,545,758).

Without acquiescing in the above rejection, claim 15 is patentable over the combined teachings of Eggers 2 and Sandstrom at least as a result of the dependency of claim 15 from claim 8, which, as demonstrated above, is patentable over Eggers 2. The deficiencies of Eggers 2 with regard to claim 8 are enumerated above and Mallet does not cure these deficiencies. Neither Eggers 2 nor Mallet, either individually or in combination, teaches or suggests a pad of resistive material on a substrate between a first electrode and a second electrode.

### Conclusion

Claims 1-15 satisfy the requirements of 35 U.S.C. §§102 and 103. Allowance of the above-identified patent application, it is submitted, is in order. In any event, the above amendments narrow the number of issues and place the application in better form for consideration on appeal. No new issues are raised since the claims already recited the limitations of a substrate and a pad of resistive material between the first and second electrodes.

Respectfully submitted,

  
Theodore J. Leitereg  
Attorney for Applicant  
Reg. No. 28,319

Agilent Technologies, Inc.  
Legal Department, M/S DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599